

QUARANTINE AND COMMERCE

AN ADDRESS

DELIVERED BEFORE THE

COMMERCIAL CLUB

— OF —

CINCINNATI,

— BY —

DR. WALTER WYMAN,

SURGEON-GENERAL OF THE MARINE-HOSPITAL SERVICE,

OCTOBER 15th, 1898.

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Quarantine and Commerce.

Mr. President and Gentlemen:

It was with great pleasure that I accepted your kind invitation to be present on this occasion, feeling that in coming to Cincinnati I would be but returning to a former home, where my residence of three years was one of unalloyed pleasure, and I may say profit, and I feel to-night as though I were simply returning to visit friends in a most delightful manner. Having in mind, too, the great commercial importance of this Queen City of the West and the character of your organization, I feel that the topic named for discussion this evening is a timely one; I myself having devoted a large part of the last few years to the matter of quarantine laws, the forming of quarantine regulations, and the execution thereof, while you have at heart the great question of commerce, which is so seriously affected by quarantine. Quarantine and Commerce: without commerce there would be scarcely any necessity for quarantine, and the latter assists or obstructs according as the quarantine restraints are rational or irrational.

The tremendous growth of commerce during this age of steam and electricity has made necessary greater attention to the demands of a *righteous* quarantine; and the intolerance of expensive delays by modern commerce demands that quarantine shall be stripped of all unnecessary, burdensome features.

In modern times he is not a properly qualified quarantine officer who does not realize that the detention of those floating communities, the merchant ships, laden with the exchange products of the earth's surface, and the interference with that great network of railroads which form our interstate commerce, are matters of serious import to trade and to the functions of our national domestic life.

On the other hand, he is not a proper quarantine officer who does not realize that generally through commerce are the great contagious diseases carried to all sections of the globe and from

one part of a country to another, so that if through mistaken judgment or an overweening desire to yield to commercial interests, a mistake is made and contagion allowed to spread, proceeding hand in hand with commerce in its all-pervading ramifications, not only is death and disaster brought about, but the very end which he sought to avoid, the crippling of commerce, has been brought about to an increased degree that simply cannot be estimated.

I am glad of this opportunity of calling public attention to the critical position in which the well qualified and wise quarantine officer is often placed. To him are particularly applicable the words of Daniel Webster, when he said: "No one can perform his part well unless he comprehends and feels its importance and comprehends and justly appreciates all the duties belonging to it." Not only must he mean well; he must do well. Consider the position in which he is often placed. A great ship from a foreign clime, whose daily expenses may amount to thousands of dollars, is held pending the examination of a suspicious case of sickness. The agent of the vessel, the assignee of the cargo, the master and passengers are all intolerant of delay. Perhaps it is a foreign vessel, and, through the Department of State, the representatives of the foreign government are bringing pressure to bear. Almost alone he faces these conditions in the quarantine anchorage, holding the vessel there while he determines in his own mind the nature of the sickness. This situation develops a primary requirement of the modern quarantine officer. He must be well versed in the science of medicine, with special training with regard to those diseases which will become epidemic, and with which many physicians, in the course of their lifelong practice, never become familiar.

Stretched along the Atlantic and Gulf and the Pacific Coasts of the United States, from Maine to the State of Washington, at 120 points of entrance to the ports of the United States, are these officers. So far are most of them removed from observation, by reason of their isolated location, that the public knows but little of their self-sacrificing, difficult, and scientific labors. I have visited a great many of these stations and observed the services of these men while being rendered, and I wish to state here that I know of no position calling for higher qualities of manhood, physical endurance, mental acuteness, judicial temperament, and firmness

of purpose, than is required by the position of a maritime quarantine officer.

Now, the consideration of quarantine naturally demands the division of the subject into *maritime* and *interstate* quarantine. The older of these divisions is maritime quarantine, which dates back in history to the fifteenth century, when, by reason of the plague in the Orient, the first quarantine was established by the authorities of Venice. For forty days they confined in their lazarettos those who came from the infected domains. From that time until the present maritime quarantine has been maintained by civilized nations, with degrees of intelligence varying with the sanitary and medical intelligence of the age. The growth of medical science has brought with it improvements in quarantine administration based upon increased scientific knowledge; but, I regret to say, the improvements in quarantine administration have not always kept up with equal pace.

At the very best quarantine is a restraint, and as such is irksome, and the day will be hailed with joy, and I believe that its breaking may even now be discerned, when our knowledge of contagious diseases, our practices with regard to municipal, maritime, and individual sanitation will be such that quarantine will become little more than a name, requiring only the stamp of inspection, given to render assurance doubly sure, as to the health of vessels and the people and cargo which they carry. But at the present time this pleasing contemplation is about on a par with the happy thought of universal peace and disarmament of nations, greatly to be desired and an ideal state; but as we can no more think at the present moment of disbanding our armies and dismantling our ships of war, no more can we at the present moment think of dispensing with quarantine.

NATIONAL MARITIME QUARANTINE SYSTEM OF THE UNITED STATES.

With regard to the national quarantine system of the United States, I believe it to be in advance, in intelligence and effectiveness, of that of any nation. The only nation which, in the matter of importance and intelligence, can be compared with it is the English nation, and I wish here to call attention to and refute the statements which are so frequently made, sometimes by visionaries and theorists and at other times by anglomaniacs, to the

effect that the English do not believe in quarantine at all, and that in spite of their lack of quarantine restraints the same or a greater degree of safety has been assured as has resulted from the more strenuous efforts of other countries. Not to dwell too long upon this topic I will simply refer to the discussion thereof in the British Medical Association, which, for the first time in its history, met at a point outside of England, namely, at Montreal, last fall. By special invitation I joined in the discussion there with regard to the relative merits of the quarantine systems of England, Canada and the United States. It was shown that the quarantine procedures of Canada were practically the same as those of this country. It was agreed by the English physicians who were present that in all essential particulars the practice of quarantine in Canada and the United States was that of the English, and that the differences in details are due to the different conditions regarding territory, coast line, and exposure.

From the paper which I read at that meeting I quote as follows, remarking upon certain peculiar conditions attaching to the United States: "First, the great number of the ports of entry and the great length of coast line, measuring, exclusive of Alaska, 5,450 statute miles, not counting the intricacies of the shore line. Then the great population, numbering in 1890 about 63,000,000, while that of the German Empire, without its dependencies, was 49,000,000; France, 38,000,000; Great Britain and Ireland, 37,000,000; Italy, 30,000,000 and Spain 17,000,000. The areas covered by these populations are as follows: United States, 2,970,000 square miles; German Empire, 200,000; France, 204,000; Great Britain and Ireland, 121,000; Italy, 114,000; Spain, 194,000.

Again, special conditions exist in connection with the great crowds of immigrants that daily land upon our shores. In ten years (1882-1891) more than five millions of them arrived, and in one year alone (1891) more than half a million were received.

These immigrants are from all countries, from over-populated districts; they are mainly of the poor and ignorant class, and through their baggage, as well as themselves, subject the United States to the importation of infectious disease to a degree far in excess of the exposure of any of the nations just mentioned.

Other conditions affecting the quarantine policy of the United States, are found in the great variations of climate and in the character of the commerce on different portions of our coast, by reason of which diseases much dreaded in one section give but little concern in another. There are, therefore, three geographical sections. First, the Atlantic Coast, north of the southern boundary of Maryland. Here arrive most of the immigrants, and our chief concern is with regard to cholera, smallpox and typhoid fever, while yellow fever excites but little apprehension. Second, the Atlantic Coast, south of the southern boundary of Maryland and the Gulf Coast. Here very few immigrants arrive, but on account of proximity to the Spanish Main, with its yellow fever infected seaports and because climatic conditions favor the propagation of yellow fever if introduced, that disease is the chief concern. Third, the Pacific Coast. Here there is some immigration from China, and guard must be kept against yellow fever from South America—smallpox, cholera and the plague from the Orient.”

THE BANE OF YELLOW FEVER.

Now, of the diseases mentioned above the three which give the most concern and require the greatest activity are cholera, smallpox, and yellow fever, and of these three the last, yellow fever, is the one disease which exceeds all the others in danger and importance because we know the least of its true nature and character.

Through the summer the whole southern coast of the United States is on the qui vive lest yellow fever shall gain admittance. Ever since the settlement of this country there has been this annual dread. Of late years the visitations have been, happily, less frequent, but not so infrequent as to enable us to forget at any time the panic, the mortality, and the interference with commerce which are its invariable concomitants.

During the present century there have been only nine years in which the United States has not been visited by yellow fever. In some of these years, it is true, the visitation has been slight, but in others—notably the epidemic of 1878—the visitation has been heavy, causing a suspension of traffic, hindrance to intercourse between sections, obstruction to transportation of supplies and consequently suffering, and finally death itself. It has been

estimated that the epidemic of 1878 invaded 132 towns, caused a mortality of 15,954 persons and that the pecuniary loss to the country was not less than \$100,000,000 in gold.

The restrictions upon maritime commerce caused by this disease are so great that it seems incredible that they are submitted to without more complaint or that greater difficulty is not experienced in their enforcement. Though formerly yellow fever prevailed in the north, it is now recognized as menacing only the south, and, accordingly, in the quarantine regulations of the United States an imaginary line has been drawn along the southern border of Maryland and a distinction has been made in regard to vessels arriving at ports in the United States north and south of this line when they come from ports infected with yellow fever. Thus, a vessel arriving from Cuba at one of the southern ports between the first of April and the first of November, even though there has been no yellow fever on board during the voyage, must be disinfected and held from three to five days before being allowed entry; exception is made to passenger vessels constructed of iron, with immune crews, carrying only immune passengers, the vessel not lying over night in a Cuban port. The same vessels arriving at a northern port are disinfected only in case disease has actually appeared on board.

Even with these great restrictions upon commerce, safety is not absolute, and the question has been frequently asked of late years: "How long is this condition of affairs to be allowed to persist?"

CUBA'S UNSANITARY CONDITION.

In 1896 formal complaint was made to the Spanish Government of the sanitary condition of Havana, which permitted the persistence of yellow fever in the city and harbor. I addressed a letter to the Secretary of the Treasury, recounting the facts and making protest as a sanitary officer charged with the duty of protecting the United States. This letter was forwarded to the Secretary of State, and in turn transmitted by him to the Spanish Minister in Washington, accompanied by a note of warning, for presentation to the Spanish Government, and a copy was sent to our own Minister in Madrid for presentation to the Spanish Government there. The revolution which was then prevailing in Cuba furnished, perhaps, sufficient reason why the Spanish Government

could not at once undertake a regeneration of the city and the cleansing of the harbor, yet this, I believe, they never would have done, even, if there had been no rebellion, and, had there been no other reason for the waging of the war so successfully conducted during the past summer, in my opinion it would have been justified by reason of these intolerable sanitary conditions, which the Spanish Government, through its rapacity, had allowed to exist so long at the port of Havana and other ports of Cuba without amelioration. For it may be said that yellow fever is not a natural inhabitant of the United States, and that, while it may when introduced and under favoring conditions affect communities where proper sanitary conditions exist, still its maintenance as a prevailing disease is due to want of proper sanitation. It may spread where there is no filth, but it is none the less a filth disease, and one of the most, if not the most, glorious results of the war will be the regeneration of the Cuban cities and the gradual extermination of this burdensome, horrible pest.

Whether under Cuban or American rule, attention doubtless will be given to the sanitary conditions in Cuban seaports, and I look for a relief in great part, though not altogether, from the quarantine restrictions upon commerce which for so long a time have been, and are now, in vogue. Let me explain : With American predominance in the Island of Cuba there will be little or no difficulty, even before the ports and cities are placed in better sanitary condition, of this Government exercising a surveillance over vessels leaving for the coast of the United States proper. There is in contemplation already the locating of disinfecting plants in a number of Cuban ports by which vessels may be made absolutely safe before leaving these ports, and after vessels have been placed in proper sanitary condition at the port of departure the time occupied in their voyage to our coast, provided they arrive with no manifestations of disease, will be counted as the time which is now passed by the vessels while held in quarantine from three to five days on this side. But more than this, I feel confident that soon the sanitary ideas of the United States will prevail in Cuba and that sanitary engineering, sanitary plumbing, good drainage, good sewerage, and good water supply, will all, under American influence, replace the sad conditions which prevail in all Cuban cities at present.

With these improved conditions there is no question in my mind that yellow fever will diminish in intensity and frequency and may be made in due time to disappear almost entirely. These results have been attained in Jamaica despite its proximity to Cuba as a source of infection, and with "Cuba Libre" liberated from the dominion of the Spaniard, whether independent or attached to the United States, it is not too much to expect that the yellow scourge will be made to almost entirely disappear; and with its disappearance from Cuba almost nine-tenths of the danger of its introduction into the United States will be removed.

One writer has said with regard to Cuba, that, as its prosperity and commerce has increased it has become the greatest nursery and camping ground of one of man's most ruthless destroyers. "Itself most seriously afflicted, it annually disseminates to other lands, as from a central Hell, disease and death." The picture is a strong one, but no stronger than the truth.

We may confidently expect that President McKinley, your greatest citizen, *our* greatest citizen, with that warm sympathy with the wishes of the people and that earnest regard for our true welfare which has so notably characterized his administration, will, in the formative conditions that now prevail in that beautiful island, see that this most important subject receives the consideration which it deserves. The blessings that will result can hardly be estimated, for with such a central Hell of dissemination of this disease, no matter how great the care to escape it on the part of other tropical ports, or to eliminate it if infected, they are constantly subject to infection and again to reinfection from this same pestilential center.

INTERNATIONAL SENTIMENT NECESSARY.

But with this great source removed there will be hope for other tropical ports and it is not too much to expect that the influence of example and the beneficent results obtained will cause the Governments of other centers, more remote but still dangerous, to take radical measures to the end that this disease, which is so peculiarly a disease of the Western Continent, shall no more exercise its ruinous sway, but become practically blotted out, leaving only to history to record the times when neglect of sanitation went hand in hand with oppression and robbery, and commerce was afflicted with a burdensome parasite. It is not pure optimism

to suppose that an international sentiment may be awakened, which will cause Yellow Fever in a given port and the faulty sanitation which it implies to be an opprobrium upon the Government in possession of the offending port so great as not to be borne. Every nation should be held responsible for any conditions within its borders or within its dependencies which tend to propagate epidemic diseases that may be carried to other nations with which it expects to maintain a friendly commerce.

Two years ago, in Mexico, at a meeting of the Pan-American Medical Association, I called attention to this subject in an address on international responsibility with regard to infectious diseases, and from the report of the International Committee upon International Quarantine, submitted and adopted by that association, I quote the closing paragraph, as follows:

“Sentiment does not enter into the the ordinary consideration of quarantine, yet your committee cannot refrain from expressing the hope that an international sentiment will be awakened with regard to sanitation of seaport cities and their harbors so that a perpetually infected seaport will be regarded as an unnecessary menace to other countries and an intolerable obstruction to commerce; and that, yielding to this sentiment, the various Governments will remove conditions which subject them to international opprobrium, that trade may go on unfettered and friendly intercourse be maintained without danger to human life.”

NATIONAL MARITIME QUARANTINE.

Now, further with regard to Maritime Quarantine, I suppose many of you are more or less familiar with the discussion which has been particularly active in the last few years as to whether it is properly a national or a state function, and a few words upon this subject I believe will not be out of place.

THE DEVELOPMENT OF NATIONAL QUARANTINE.

Until 1893 there was, properly speaking, no national system of quarantine. The Colonies had their own Quarantine regulations before the formation of the Union, and from that event to 1893 quarantine was left to the care of the State Governments, and by the latter to county governments or to municipalities, as the case might be. There was, indeed, national legislation, but all the Acts of Congress up to 1893, relating to quarantine, specifically provided that the said national measures were in aid of the

state and local authorities. Whatever opinions may have been held by members of the National Legislature, quarantine was permitted to be exercised by the States as a police function, and even in the present law, which gives national supremacy, it is provided that assistance shall be given the States or municipalities by the government authorities, the supremacy of the latter being asserted only when the State or local authorities fail or refuse to enforce the uniform national regulations.

As a result of the old system, prior to 1893, each State had its own quarantine requirements. Different cities in the same States had different requirements. One city, in order to divert trade from its neighboring rival, would be less exacting than the latter in the inspection and treatment of infected vessels. Some cities found quarantine to be a means of considerable revenue, laying heavy charges for unnecessary inspection and perfunctory disinfection of vessels. The position of quarantine officer became extremely lucrative, and one of the principal offices to be used as a reward for political service, and as a source from which could be derived contributions for partisan purposes. No wonder, then, that this system was faulty, a burden upon commerce, and did not protect.

The great demand for uniformity of maritime quarantine procedures was formerly the chief cry of the sanitarians of the United States, both before and subsequent to the civil war. Conventions were held for the purpose of bringing about an agreement of the different states as to quarantine matters and regulations - one at Philadelphia in 1857, another at Baltimore in 1858, New York in 1859, and Boston in 1860. These conventions were then interrupted by the war. The first held after the war was at Jacksonville in 1878, the next at Philadelphia in 1885, and one was held at Montgomery, Alabama, in 1889. These conventions utterly failed to effect their purpose, and it was not until Congress passed the law of 1893 that anything like uniformity of quarantine regulations was provided for the United States. But while Congress did allow, as it were, by sufferance, the state to execute quarantine measures, it never by any act abandoned or disclaimed its right to maintain quarantine under the clause of the Constitution which gives it the right to regulate commerce, and in 1893 it passed an act entitled "An Act Granting Additional Quarantine Powers and

Imposing Additional Duties Upon the Marine Hospital Service," empowering the Surgeon General of the marine hospital service to examine all the quarantine regulations of the various states and municipalities, and if any were found to be insufficient authorizing the Secretary of the Treasury to formulate such additional regulations as should be necessary; these regulations to be enforced by the state or municipal authorities if they will undertake to do so, but if they fail or refuse the President is authorized to execute them and to appoint or detail officers for this purpose.

THE PRESENT LAW.

This act was a great advance in the matter of national quarantine, and under its provisions regulations have been promulgated, and in several instances, where state or municipal authorities have failed to execute them, the compulsory right mentioned in the law has been enforced and the National Government has taken control.

But the law still fails to provide for a strictly national quarantine, and is faulty in a number of respects. First, the provision which requires a demonstration of inefficiency before the National Government shall take control has a fatal effect, because a demonstration of deficiency involves too much danger. Ordinarily the failure to enforce the national regulations is only demonstrated by some marked occurrence, which is dangerous in the extreme. For example, at one quarantine station, where the President has taken action under the law of 1893, the first demonstration of inefficient administration was the permitting of the landing of a large number of immigrants who had been exposed to cholera, and had actually conveyed cholera to a port on the way to the United States.

Aside from this it requires too much time, and offers opportunity for too much dispute as to whether the regulations have failed of enforcement, before under the law the President can be called upon to act. Another unfortunate feature of the present law is that the Government is obliged to aid in the execution and enforcement of such quarantine regulations as may be promulgated by the states and municipalities. Occasionally some very foolish and useless regulations are thus promulgated which it would be obvious folly to assist in executing. The law should read that if there is any assistance to be rendered it should be by the states and municipalities to the National Government, and should not compel the National Government to assist the states. The present law does

not provide for the establishment of national quarantine stations at such points as may be necessary, either on the sea coast or on the Mexican and Canadian borders. It does not provide that when a vessel has been inspected by a national quarantine officer that that inspection shall be final. It does provide that if the vessel has been disinfected it may be admitted to enter any port named in the quarantine certificate, but the number of vessels thus disinfected is comparatively few compared with those simply inspected.

At or near one of the principal seaports of the United States the National Government, acting on request of several state and municipal authorities, has established a most complete quarantine establishment at large expense, conducted by regularly commissioned officers of the Marine Hospital service. The municipality thus protected has established another quarantine station nearer to the city, where it goes through the form of reinspecting, and charging for, vessels which have already been passed upon by the national officers, and there is no law to prevent this. The law is lacking also in not providing for the apprehension of vessels from Cuba, which, under the guise of fishing, are engaged in smuggling upon our southern coasts, and while thus engaged may land infected material. And, worst of all, the National Maritime Quarantine law of 1893 provides no penalties for breaking the quarantine rules other than the penalty imposed upon a vessel if it sails from a foreign port without a bill of health.

INTEREST OF INTERIOR STATES IN MARITIME QUARANTINE.

The interest of the interior states in maritime quarantine is greater than may at first appear. Immigrants and other passengers, merchandise, etc, arriving at a port of entry are not altogether destined for that port. The interior states, it may be stated are principally their destination. Why then should not the whole country share the expense of quarantine and relieve the vessels of the onerous quarantine charges; and why should the safety of the interior of the United States be dependant upon the conscientiousness and care of a local appointee, whose responsibility is limited to the confines of his town or his state, and who moreover is not a unit in the general system arranged for protection, but as too often happens is appointed for some political or local reason and subject to change with the changes of local politics. In justice to the state and local quarantine administrations I do not

wish to imply that this is the universal rule, and I wish here to give testimony to the ability and care of many of these state and local officers, but the fact remains that the principle is faulty and the argument just mentioned has had a number of verifications in actual experience. I have been informed on very good authority that at one point of entry into the United States from a foreign country, if cases of suspected smallpox are destined through the state to other states, no attention is paid to them, they are allowed to go on. They are only taken up and held under surveillance if intending to stop in the state which is upon the border.

In illustration of the interest which the interior States have in maritime quarantine and their desire for a strictly national system and as demonstrating that the expenses of quarantine should be met by the whole people rather than by vessels entering the several ports, I insert here the following communication from the board of health of Michigan addressed to the Senators and Congressmen from Michigan.

STATE BOARD OF HEALTH, OFFICE OF THE SECRETARY.

Lansing, March 18, 1896.

GENTLEMEN: We, the officers of the Michigan State Board of Health, having in mind especially the protection of the citizens of Michigan from danger of contracting communicable diseases from immigrants and immigrants' baggage passing through the port at Portland, Me., to which port many immigrants bound for Michigan and beyond sometimes come, especially in winter, when the St. Lawrence River is not navigable, and understanding that it is the desire of the local and of the state health authorities of Maine that a national quarantine station be established at the port of Portland, Me., do most respectfully urge the honorable the Senators and Representatives in Congress from Michigan to use their influence to bring about this desired improvement.

We believe that a frequently changing municipal government, with its varying ideas of the expediency of making expenditures which are more largely for the protection of citizens of other parts of this country than of the citizens of Maine, is not equal to the task of the continuous maintenance of a quarantine station which shall meet the requirements for safety to the health of our people.

We believe that the interests of the whole country would be much better served if there was at Portland, Me., a quarantine station under the control of the National Government.

Again expressing a desire that you use your influence in bringing about this desired change, we remain, very respectfully,

FRANK WELLS, *President.*

HENRY B. BAKER, *Secretary.*

QUARANTINE A FUNCTION OF THE TREASURY DEPARTMENT.

For these reasons I have held, and still maintain, that all quarantine, particularly maritime quarantine, should be National. It is a concomitant of commerce, over which, under the Constitution, the National Government has absolute control, and it naturally belongs to that Department of the Government invested with the power of regulating commerce in other respects. In other words, it is, properly speaking, the function of the Treasury Department. This Department registers, licenses, and enrolls all merchant vessels of the United States; it inspects the hulls, boilers, and machinery; it determines upon the number of passengers which may be carried, and provides for the housing and the rations of the crews; it carefully examines all the pilots upon the American vessels and determines upon granting them a license; it supervises the bringing of immigrants by these vessels from abroad; it enforces the navigation laws and aids vessels in distress by an efficient revenue-cutter service; it provides the lighthouses and the buoys which mark the channels for these vessels to enter; it makes the soundings and furnishes the charts of our coast in further aid of these vessels; it provides for the care of the sick of our merchant marine: why then should it relegate to a state authority or the health officer of some small port the one remaining act of surveillance over these vessels, namely the determination of whether they may be admitted to enter from a sanitary standpoint. Why should it leave to a local appointee, responsible only to a mayor or a governor, the power to determine whether all the people and the merchandise in these vessels, destined for all portions of the United States, shall be permitted to enter without detention, and why should it give this local officer the power to detain these vessels in quarantine?

These are some of the defects in the National Quarantine Law as it at present stands, which it is the aim of the Caffery Bill to rectify. This bill is now before the Senate and the House, reported on favorably by both committees, but not yet acted on by either body.

INTERSTATE QUARANTINE AND YELLOW FEVER.

With regard to interstate quarantine, the law authorizes, when it is satisfactorily shown that yellow fever prevails to such an extent in any state as to endanger other states and territories,

national rules and regulations may be made, and another law requires cooperation with state and local authorities. The truth is, however, with regard to some of the epidemic diseases, particularly yellow fever, that, by the time the disease has become so extensive as to seriously threaten another state, the measures which might have been successful in suppressing it are apt to be futile. In other words, yellow fever is somewhat like a conflagration; if the first sparks are discovered the fire may be prevented from spreading and in fact be put out, but if too much headway is gained there is sure to be some destruction and almost certain to be some spread. Yellow fever is a disease which is so disastrous to commerce and so entirely disrupts the business of a town or city, that in most places it is an act of temerity, almost, to proclaim it. I know that in one city at least it prevailed in the late fall and has been kept secret until the local medical officer declared that if the good Lord did not send a frost soon he could keep the knowledge of it back no longer. The temptation to hide the first case is very great, and it is extremely difficult to believe that a few cases of mild fever with recovery, no more severe than an ordinary case of malarial fever, are as dangerous as a spark in a bundle of shavings. It is natural to look upon the hopeful side of affairs and there is frequently enough of doubt as to the nature of a case to furnish an excuse to the attending physician to give the benefit of the doubt to the harmless disease and call it malaria; yet there is no doubt that occasionally well defined cases where they are actually known are hidden, and the sooner an educated public opinion demands that every case be promptly announced and prompt action taken, the sooner will we be able to obviate an epidemic.

THE MC HENRY EPIDEMIC.

What can be done when prompt notification is given can be illustrated by last summer's experience in McHenry, Mississippi. The yellow fever prevailed in that town in the fall of '97 and during the following winter a most thorough disinfection of all the houses known to have been infected was conducted, great care being exercised. However, an icehouse, supposed to be such but really filled with sawdust, which had been used during the epidemic of '97 by people from an infected house as a latrine, escaped disinfection. In cleaning it out last summer two workmen were simultaneously stricken with yellow fever. There had been a

number of cases before the disease was made known and one or two persons who had been exposed to infection had gone to neighboring localities where they, themselves, developed the disease. They were traced, however, and placed under treatment and when recovering ordinary precautions were taken and it did not spread from these cases. All who had been exposed to infection in McHenry were isolated, the sick were treated in tent hospitals by themselves, and thus all trace of the disease was wiped out. There were all told twenty-five cases. How the disease originated later in Louisiana and Mississippi is a matter not yet to be passed upon. It would be improper to give a decision upon this point until full official inquiry has been completed, but it is a short-sighted policy that contemplates the secretion of all knowledge of the presence of yellow fever; it is not only shortsighted, it is a cruel policy, cruel to those in the immediate neighborhood, and, on the part of state and local physicians, unjust and cruel to the people of neighboring states and localities. If there were some means by which there could be a compulsory notification and the general Government could immediately take charge of the infected locality it would give increased confidence, would prevent the laying of senseless quarantines, and in time people might come to regard a case of yellow fever as they do at present a case of small-pox—something to be avoided, but to be taken care of officially. Deception is practiced because it is known that if the disease is announced the neighboring states and localities will quarantine against, and ruin the business of the locality infected. On the contrary the neighboring states and localities take this action because experience has taught them that deception is practiced until the truth can no longer be withheld. The announcement of one case of yellow fever is generally proof positive that there have been a number of cases before the announcement was made, and that the announcement is only made because the truth can be no longer withheld.

MEASURES TO PREVENT SPREAD OF YELLOW FEVER.

It is the policy of the Marine-Hospital Service while attempting to suppress an epidemic to prevent so far as possible unnecessary restrictions upon commerce. Therefore, a classification of freight has been made. Some classes require no disinfection whatever, other classes, under certain conditions, require partial

disinfection of exterior etc , and other classes require absolute disinfection. With regard to passenger traffic, train inspectors are placed upon all trains running from the infected districts, with a view to preventing people leaving unless possessing a certificate to the effect that they have been in a non-infected place for the ten days immediately preceding and a certificate for the disinfection of their baggage if from an infected locality. When a town or locality is of a size which will permit of it, a cordon of guards is thrown around it and none are allowed to leave it without passing through a camp of detention, which is made as comfortable as possible, where people may pass ten days and then be given a certificate which permits them to pass into non-infected states and localities. Experience has proven that an epidemic of yellow fever which begins early in the summer is a much more serious affair than one which begins in the fall or late summer. The worst epidemic of yellow fever known in modern times was that of 1878, when it is estimated there were over 15 000 deaths. This epidemic began in the early summer ; the one of last year began in the early fall, as also did the one which is now prevailing. It will diminish with the appearance of cooler weather and be brought to an end by the first killing frost. In explanation of the seeming spread of the disease it should be stated that in many of the places announced as being newly infected it is found that the disease has been prevalent in a mild form 20 to 30 days, thus showing that it has not spread from place to place as is popularly supposed but that the disease may have come to a number of places at about the same time from a common origin. Thus when A is infected and after a while B is found to be infected and later on C, it does not follow that C has taken infection from B but rather from A. This again emphasizes the disaster involved in the authorities of A keeping the existence of the disease a secret.

Now gentlemen it is time I should bring my remarks to a close. I must not forget that these matters, so absorbing to myself, may not be of equal interest to you. Yet I should like had I had time to prepare and had you the time and patience to listen, to touch upon many topics growing out of the subject presented. I should like to speak more fully concerning the quarantine law, to describe the quarantine service of the United States, National as well as State, to describe how the former has grown to twelve

large stations with their equipments of piers, warehouses, barracks, boarding steamers, hospitals, and disinfecting apparatus. I should like to describe the work of the Marine Hospital Service, whose officers control these stations and to tell what the corps does and how it has grown from the limited relief to the sailor when it was established in 1798 to its present proportions in this the 100th year of its existence when it treats 53,000 sailors annually, conducts twenty hospitals and 120 relief stations, examines pilots examines men for the revenue cutter Service, examines crews for life saving stations, conducts a hygienic laboratory, inspects the immigrants, and issues public health reports each week, embodying sanitary and statistical news from all parts of the world. I might interest you with a plain narrative of its operations during the past summer and fall, when so many causes have contributed to unusual responsibility and to extension of its scope. But all this would take undue time. So in conclusion I will simply give expression to one thought which occurred to me while reflecting on the topic of the evening, and while visiting, as I often do, as it is but a block from my office in Washington, that beautiful building, the Congressional Library on Capitol Hill. All Americans who visit that building are impressed with the grandeur of its architecture, its ornate exterior, and the beauty of its interior structure and decoration. The appreciation is by no means diminished by the sense of proprietorship, which all may feel; and as from one of its upper balconies one takes in the views spread out before him, these emotions can not but be enhanced. There is the Capitol, unsurpassed by any in the world, and from its base the broad clean avenues, fringed with trees, extend to the Potomac; and toward their further end rise the White House, the Treasury, the State, War and Navy building, the Naval Observatory, and that grand monumental shaft to Washington. All this is ours, and as the eye rests upon the Virginia hills beyond, it is not difficult for the mind to go still further South across the blue waters of the Gulf to the Gem of the Antilles, freed at last, and to Porto Rico, in three more days to be under the American flag. Then we think of Hawaii and the Philippines, and how with all this expansion of our territory, there must be expansion of our commerce. Our exultation, however, is tempered by responsibility; the commercial world has much to do to profit to the utmost by our new conditions,

and as each agent of Government service seems striving to lend all possible aid to secure the full fruition of our victories, let me say to you, on behalf of the National Quarantine Service, that no effort will be spared to prevent our commerce being hampered by disease, for this is modern quarantine,—to strip commerce of disease, both for its own good and for public safety.



